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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/700,857	11/04/2003	Young H. Kim	CL2207USNA	6319
43693 7590 03/12/2007 INVISTA NORTH AMERICA S.A.R.L. THREE LITTLE FALLS CENTRE/1052 2801 CENTERVILLE ROAD WILMINGTON, DE 19808			EXAMINER TRAN, THAO T	
			ART UNIT	PAPER NUMBER
			1711	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		03/12/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/700,857

Applicant(s)

KIM ET AL.

Examiner

Thao T. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application
- ☐ Other: _____.

DETAILED ACTION

1. This is in response to the Amendment filed on 12/20/2006.
2. Claims 1-29 are currently pending in this application. Claim 28 has been amended.
3. In view of the prior Office action, the objection of claim 28 has been withdrawn due to the Amendment made thereto.
4. The prior art rejections of the claims are maintained below.

Claim Rejections - 35 USC § 102

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
6. Claims 20-22, 24-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Bialke et al. (US Pat. 6,794,475).

Bialke discloses an aqueous polyurethane-urea dispersion (PUD) used in making gloves, films, or sheets (see abstract; col. 1, ln. 6-9; col. 10, ln. 8-10), the PUD dispersion comprising polymerized units of diisocyanate and hydrophilic moiety, and of polyols. The diisocyanates include toluene diisocyanate. The polyols include polyesters, such as polyester of adipic acid and ethylene glycol (see col. 8, ln. 39-59). The hydrophilic moiety is dimethylol propionic acid (see col. 9, ln. 20-21). Note that the propionic acid is to provide the hydrophilic moiety into the PUD to stabilize the dispersion in water, thus it is a surfactant. Moreover, Bialke teaches the use of surfactants in the dispersion (see col. 9, ln. 67).

The reference further discloses that branching agents and crosslinking agents are optional (see col. 9, ln. 32-33, paragraph crossing col. 9-10) or that the PUD comprises diol, diamine, or

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both (see col. 8, ln. 42-44). Thus, the PUD of Bialke can be exclusive of the chain extenders or crosslinker and would inherently have the same concentration of urea as presently claimed.

Claim Rejections - 35 USC § 103

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bialke et al. (US Pat. 6,794,475) as applied to claims 20-21 above.

Bialke is as set forth in claims 20-21 above and incorporated herein.

Bialke teaches the use of dimethylolpropionic acid, and not 2,2-dimethanolpropionic acid. However, it would have been obvious to one of ordinary skill in the art that substituting one acid for another would have been given the same effects because these two propionic acids have been used as alternatives of each other in the art.

9. Claims 1-19, 23, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bialke as applied to claims 20-22 and 24-29 above, and in view of Soto et al. (US Pat. 5,008,325) or Taub (US Pat. 3,404,131).

Bialke is as set forth in claims 20-22 and 24-29 above and incorporated herein.

Bialke discloses the polyols to be polyethers including alkylene oxides, such as ethylene oxide, propylene oxide and tetrahydrofuran (see col. 9, ln. 4-6).

Bialke, however, does not disclose the use of a copolymer of tetrahydrofuran and an alkylene oxide and/or a cyclic acetal; or the molecular weight of the polyether.

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Soto teaches a film prepared from an ionic polyurethane-urea polymer using a polyether polyol of tetrahydrofuran and ethylene oxide and/or propylene oxide copolymer (see col. 6, ln. 22-43) having a molecular weight of 800-2000 (see col. 5, ln. 11).

Taub teaches a film made of polyether-urethane-urea polymer using a polyether polyol copolymer of tetrahydrofuran and ethylene oxide or propylene oxide, having a molecular weight of 1000 to 2000 (see col. 2, ln. 52-56).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have employed the copolymer polyol, as taught by Soto or Taub, in the PUD of Bialke. The use of a polyether polyol copolymer has been known to enhance stabilization effect of the PUD in a continuous phase and color stability of the product.

Response to Arguments

10. Applicant's arguments filed 12/20/2006 have been fully considered but they are not persuasive.

In response to Applicants' argument that the invention of Bialke is not directed to polyurethane films, but is instead directed to polymers and polymer blends, it is noted that in Bialke, the polymers including poly(urethane-urea)s are used in making articles, such as gloves, films, or sheets (see abstract; col. 10, ln. 8-10). It is further noted that the poly(urethane-urea) is the step 2 polymer in Bialke, thus the crosslinking agents are used for the poly(urethane-urea) polymer. As pointed out before, the reference discloses that branching agents and crosslinking agents are optional (see col. 9, ln. 32-33, paragraph crossing col. 9-10) or that the PUD comprises diol, diamine, or both (see col. 8, ln. 42-44). Thus, the PUD of Bialke can be exclusive

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of the chain extenders or crosslinker and would inherently have the same concentration of urea as presently claimed.

The same arguments are presented with respect to Applicants' arguments in regards to the obviousness of the reference.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thao T. Tran whose telephone number is 571-272-1080. The examiner can normally be reached on Monday-Friday, from 9:00 a.m. - 5:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Thao T. Tran
Primary Examiner
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